

Support from Above: The Need for Aerial Delivery Training in  
Ground Units

Captain Nicholas Lozar

Major Ryan Leaman, CG-9

17 February 2009

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>17 FEB 2009</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2009 to 00-00-2009</b>	
4. TITLE AND SUBTITLE <b>Support from Above: The Need for Aerial Delivery Training in Ground Units</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>United States Marine Corps,Command and Staff College, Marine Corps Combat Dev,Marine Corps University, 2076 South Street,Quantico,VA,22134-5068</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>12</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

## Introduction

In 1912, 400 years after Leonardo Da Vinci conceived the idea for a parachute,<sup>1</sup> Albert Berry became the first human being to leap from an aircraft and land safely on the ground under a canopy.<sup>2</sup> While the idea of parachutes for humans, supplies, or equipment seemed absurd, parachutes have proven to be invaluable even in today's current operating environment. However, despite the use of parachutes over the past 90 years to drop equipment or supplies, aerial resupply operations remain foreign to many ground commanders. Following a recent deployment to Afghanistan, Combat Logistics Battalion 24 determined that the use of air delivery was very useful, but their ground combat counterparts were very unfamiliar with the capability.<sup>3</sup> While commanders at all levels and backgrounds are knowledgeable in many aspects of the Marine Air-Ground Task Force (MAGTF), the evidence regarding use of particular capabilities of the MAGTF reveals a different story. For air delivery to be successful in an operational environment, ground commanders must dedicate more time to training and employment in a garrison environment.

## It's All Been Done Before

Throughout the last century, air delivery has been successful in every major war the United States has faced.

These successful examples are due to the strengths of air delivery: speed, responsiveness, and flexibility.

Speed on the battlefield is critical. When distance is the limiting factor "replacing volume with velocity" is prudent.<sup>4</sup> During Operation Iraqi Freedom in 2003 a shortage of meals, ready-to-eat (MREs) plagued many maneuver elements.<sup>5</sup> The tempo set by maneuver forces made ground-based support impossible. If maneuver elements would have had experience from training with air delivery, the speed and responsiveness inherent to air-dropped supplies could have prevented the shortfall.

While speed is important, it is useless if a degree of urgency is not applied. *Marine Corps Doctrinal Publication 4* defines responsiveness as "the right support in the right place at the right time."<sup>6</sup> The necessary supplies are worthless if they arrive the day after they were needed. During the Battle of Peleliu, Marines faced a situation where responsiveness ensured their survival. Due to the Marines' isolation, air delivered supplies became integral to the sustainment of operations.<sup>7</sup> This sustainment was possible because the commanders knew the capabilities available and leveraged them appropriately. Training enables this knowledge which in turn allows commanders to generate tempo through responsive sustainment.

Creating options enables flexibility. Flexibility is critical on the battlefield. The Army, Marine Corps, and Air Force are using air delivery in Afghanistan where supply runs to remote areas cannot be conducted via truck. Occasions will arise when trucks are better suited to deliver supplies. However, knowing how to employ a capability that can drop up to 30,000 pounds from five miles up and land it on a precise target is a powerful tool during assault and sustainment.<sup>8</sup> Units in Afghanistan are regularly using air delivery because terrain and potential enemy contact regularly turn 7-hour combat trains into 24-hour convoys.<sup>9</sup> Documentation from Marine Expeditionary Units (MEU) in the early 1990s reported that training as many MEU elements as possible to conduct air delivery operations would be advantageous. This training was never conducted even though it could "improve the flexibility and responsiveness of logistics by increasing the number of locations within the Amphibious Objective Area (AOA) that have Marines capable of helicopter support teams (HST) and drop zone operations".<sup>10</sup> In the coming years, concepts such as Seabasing and Ship-to-Objective Maneuver will make their mark on Marine Corps history. The new challenge will be ensuring widespread leverage of all logistics capabilities over the horizon.<sup>11</sup> If appropriate training for these concepts is not conducted before becoming an operational necessity, flexibility is ultimately restricted.

### Why Isn't the Corps Using This in Training?

Nothing in combat is without limitations. Airdrop is effected to weather. Since the capability is dependent upon aircraft, a low-level parachute drop could be hampered by inclement weather. To mitigate this problem, aircraft can fly above a weather front and drop Global Positioning System (GPS)-guided loads without the need to see the drop zone. Even before GPS accuracy was available, this weather mitigation was crucial. Forces in Korea relied on airdrop when frozen roads prevented convoys from getting the necessary gear to U.S. Forces. At Khe Sanh, 600 successful airdrops fed the forces with less than favorable weather conditions.<sup>12</sup>

Today's technology provides an enhanced capability to mitigate the effects of weather and terrain, but at a higher monetary cost. Most GPS-guided systems cost the Marine Corps about \$70,000 or more. Due to the cost of the GPS unit, it is preferred that the GPS unit is recovered and reused, and the supported unit must know how to de-rig the supplies. Training while in garrison can teach supported units the skill set to make traditional or GPS-guided resupply a common practice. Maintaining a high-cost, low-density capability is as important as familiarizing the supported unit with the capability. This

can be done with little effect on the training schedule of a unit.

A surprising reason for the lack of air delivery training is that officers and planners do not know that the asset is available to them in training.<sup>13</sup> In 1990, an observation from the 15th MEU stated that training for air delivery should be planned into the workup schedule to prevent ignorance of the training capability.<sup>14</sup> The report established that the commander could create a culture that would be more apt to utilize the capability "by providing the commander with a personnel interest [in the capability] and better familiarity with them."<sup>15</sup> For example, in 2004 the commander of the 15th MEU authorized the use of Air Delivery to resupply a field exercise at Camp Pendleton to foster familiarity of the capability throughout the MAGTF.<sup>16</sup> The exercise had been planned independently of the air drop and required little coordination between the supporting and supported units. The result was a very effective training event exercising the full capability of the MAGTF against the needs of the supported unit. The willingness of the MEU Commander coupled with the creative thinking of 1st Air Delivery Marines and MSSG-15 provided an opportunity to gain a worthwhile experience in an unfamiliar area. The current lack of familiarity is unacceptable and demonstrates a lack of creative thinking on the part of supported unit commanders and their

staffs. Furthermore, the lack of familiarity is contradictory to many Pre-deployment Training Plans currently being used that specifically note air delivery as one of the training milestones.<sup>17</sup>

The final argument against air delivery in training addresses perceived difficulties in planning and coordination during field training, and the training objectives of the unit superseded any attempt to insert logistics training.<sup>18</sup> This argument, unfortunately, is a product of rigorous "cookie cutter" training plans that leave no time for creative and ultimately more realistic training. In April of 2005, air delivery platoons conducting air drops to Regimental Combat Team 2 encountered several problems with drop zone operations and fouled loads.<sup>19</sup> The Class I supplies which were delivered during these drops were critical to the RCT and were needed to maintain operations. Air delivery was utilized because road travel was considered high risk. The problems noted in the after-action report spoke of problems arising due to inexperience of all parties involved. Infantry units currently in Afghanistan have to recover loads without the use of Materiel Handling Equipment (MHE) and have indicated prior training would have been useful.<sup>20</sup> Commanders currently levied with a training plan must request the freedom and time to practice this capability prior to deployment to eliminate coordination issues during the fight.



### Conclusion

The lack of air delivery use in operational environments is neither the fault of the logistician nor the aviators who deliver the supplies. The responsibility falls on the ground commander; he must know his available capabilities. Training with air delivery while in garrison, prior to deployment, will increase the ability of a ground commander to accomplish the mission by effectively utilizing all of his support assets. In this age of irregular warfare, the major battle is not always the enemy. Often, the greatest challenge is the ability to support the forces. If commanders maintain their myopic view of trucking logistics throughout every fight, then they are failing to utilize all tools at their disposal. A culture void of creativity and flexibility then develops that lacks the mindset to utilize all assets for generating tempo on the battlefield, whether conventional or irregular.

(1395 words)

---

<sup>1</sup> Mark Matheson, "The Rebirth of Aerial Delivery." *Canadian Military Journal* (Spring 2001), 43.

<sup>2</sup> Catherine Kozak, "Ups and Downs: Air Show Honors First to Leave Ground and Parachutists Who First Took the Plunge." *Knight Ridder Tribune Business News*, 19 Dec 2005, 1.

<sup>3</sup> This information was received during an after-action brief with the staff of CLB-24 on 24 February 2009.

<sup>4</sup> Matheson, 46.

<sup>5</sup> This information was gathered from discussions with many Marines following the invasion of Iraq. Due to the overwhelming tempo generated by 1st Marine Division, supplies coming from Kuwait were unable to keep pace with maneuver elements.

<sup>6</sup> United States Marine Corps, *Marine Corps Doctrinal Publication 4: Logistics* (Washington D.C.: United States Government, 1997), 104.

<sup>7</sup> Eugene B. Sledge, *With the Old Breed* (USA, Oxford University Press, 1990).

<sup>8</sup> Nathan Hodge, "Pinpoint Delivery: Sharper Aerial Insertion Methods Hit the Spot." *Jane's International Defence Review*, September 2008, 55.

<sup>9</sup> George Markert, "RE: [U] RE: Query about Log in Afghanistan." 2 January 2009. Personal email (5 January 2009).

<sup>10</sup> Hampton. "Helicopter Support Team (HST) and Air Delivery (AD) Training." *Marine Corps Center for Lessons Learned*, 1990.

<sup>11</sup> Smart. "Distribution Challenges for Logistics Sustainment." *Marine Corps Center for Lessons Learned*, 1996.

<sup>12</sup> William A. Barry, "Air Power in the Siege of Khe Sanh." *Vietnam*, October 2007.

<sup>13</sup> This information was received through verbal questioning of infantry captains from EWS class of 2009.

---

<sup>14</sup> Hampton. "Helicopter Support Team (HST) and Air Delivery (AD) Training." *Marine Corps Center for Lessons Learned*, 1990.

<sup>15</sup> Hampton.

<sup>16</sup> This example is a personal experience of the author while serving as 1st Air Delivery Platoon Commander, 1st Force Service Support Group, Camp Pendleton from April 2004 to April 2005.

<sup>17</sup> The author reviewed several PowerPoint based Pre-deployment Training Plan briefs, but was unable to determine the author or unit responsible.

<sup>18</sup> This information was received through verbal questioning of infantry captains from EWS class of 2009.

<sup>19</sup> W.S. Ebeling, "Air Delivery Re-Supply." *Marine Corps Center for Lessons Learned*, 2005.

<sup>20</sup> Markert.

## Bibliography

- 
- Barry, William A. "Air Power in the Siege of Khe Sanh." *Vietnam*, October 2007, 52-59.
- Bowra, Kenneth R. *Cambodia: Analysis of U.S. Military Assistance to Cambodia, 1970-1975*. Ft. Leavenworth: 1983.
- Dao, James. "U.S. Plane Crews Fight Hunger from the Sky." *New York Times*. 9 Oct 2001, B2.
- Ebeling, W.S. "Air Delivery Re-Supply." *Marine Corps Center for Lessons Learned*, 2005.
- Fabiano, Anthony. "Maximizing Air Distribution Support to MNF-W." *Marine Corps Center for Lessons Learned*, 2006.
- Hampton. "Helicopter Support Team (HST) and Air Delivery (AD) Training." *Marine Corps Center for Lessons Learned*, 1990.
- Harrington, Daniel F. *The Air Force Can Deliver Anything: A History of the Berlin Airlift*. USAFE Office of History, 1998.
- Hodge, Nathan. "Pinpoint Delivery: Sharper Aerial Insertion Methods Hit the Spot." *Jane's International Defence Review*, September 2008.
- Jones, Michael. "Air Delivery Drops." *Marine Corps Center for Lessons Learned*, n.d.
- Kozak, Catherine. "Ups and Downs: Air Show Honors First to Leave Ground and Parachutists Who First Took the Plunge." *Knight Ridder Tribune Business News*, 19 Dec 2005, 1.
- Launius, Roger D. and Cross II, Coy F. *MAC and the Legacy of the Berlin Airlift*. Illinois: Military Airlift Command, 1989.
- Lidy, A. Martin, et. al. *Bosnia Air Drop Study*. Alexandria: Institute for Defense Analysis, 1999.
- Markert, George W. "RE: [U] RE: Query about Log in Afghanistan." 2 January 2009. Personal email (5 January 2009).

- 
- Matheson, Mark. "The Rebirth of Aerial Delivery." *Canadian Military Journal* (Spring 2001): 43-46.
- Miller, Roger G. *To Save a City: The Berlin Airlift 1948-1949*. U.S. Government, 1998.
- Mortis, Robert W. *The Emergence of Aerial Delivery as a Routine Method of Resupply (Versus its Traditional Emergency Role)*. U.S. Army War College, 1987.
- Olinger, Mark A. "Task Force Remagen: Sustaining a Heavy Task Force via Aerial Resupply." *Armor*, March-April 1998.
- Sledge, Eugene B. *With the Old Breed*. USA, Oxford University Press, 1990.
- Smart. "Distribution Challenges for Logistics Sustainment." *Marine Corps Center for Lessons Learned*, 1996.
- Thompson, P.L. "Air Delivery Platoon." *Leatherneck*, March 1969, 38-43.
- Tine, Gregory C. "Berlin Airlift: Logistics, Humanitarian Aid, and Strategic Success." *Army Logistician*, September-October 2005, 39-41.
- United States Marine Corps, *Marine Corps Doctrinal Publication 4: Logistics*: Washington D.C.: United States Government, 1997.
- Wells, Jr., George William. "Aerial Delivery in Desert Storm." *Army Logistician*, March-April 1993, 35-37.
- Wood, Walter A. "The Parachuting of Expedition Supplies: An Experiment by the Wood Yukon Expedition of 1941." *Geographical Review*, January 1942, 36-55.